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ABSTRACT

Designed to rate the degree of implementation and quality of all the major components of a computer applications program, this checklist may be used by school district staff to support a self-assessment process, or by an external consultant, to identify elements of the program that need improvement or further development. The following components are included: (1) curriculum, i.e., the existence of a written curriculum for teaching computer literacy and definitions of the elements of the computer curriculum; (2) staff development, job training and computer training; (3) hardware/software and related instructional materials; (4) staffing and organization, scheduling computer assisted instruction, and other educational planning issues; (5) implementation of the program; and (6) program planning and budgeting. It is noted that a mean score for each component on both the implementation and quality scales should be computed. (DB)

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COMPUTER APPLICATIONS PLANNING

Program Assessment Profile

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About this Publication

This publication is one component of the Computer Applications Planning (CAPS) series, a continuing service of the Merrimack Education Center. It is intended for the use of administrators of local schools, state departments, or field service centers such as intermediate units or technology centers. This publication should assist educators in their quest for effective practices on technology implementation.

The staff welcomes and profits from the thoughtful ideas, suggestions and comments contributed by participants from our seminar series. Correspondence concerning the CAPS seminar series and technology applications within the curriculum should be addressed to the Merrimack Education Center.

Because these publications are intended as a series of "tools" for use in local schools, we have provided the publications and separate components in loose-leaf format to serve as part of a planning notebook. Supplementary materials, and a training trainers notebook, are available for certified trainers.

COMPUTER APPLICATIONS PROGRAM ASSESSMENT PROFILE

A Tool for Analyzing School and District Computer Programs and Activities

A Service of the
MERRIMACK EDUCATION CENTER
101 Mill Road
Chelmsford, Massachusetts 01824

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COMPUTER APPLICATIONS PROGRAM ASSESSMENT PROFILE

Introduction

Whether or not school districts have developed a comprehensive computer program plan, most have already acquired hardware and software, conducted teacher training, and implemented some instructional activities. District staff may want, therefore, to assess the current status of their program before beginning planning or revising existing program plans. The ***Computer Program Assessment Profile*** will assist them in this analysis.

The ***Assessment Profile*** is a checklist addressing all of the major computer program components. Each section contains several statements that can be rated on two scales: degree of implementation and quality. In addition, the ***Assessment Profile*** requires the identification of data sources for all judgments. Each item is weighted on a scale of 1-3 to reflect its criticality or importance. These weightings can be changed to accommodate changes over time in district needs and capabilities.

The Profile may be used by school district staff to support a self-assessment process, or may be used by an external consultant. Data obtained from the Profile can be analyzed by and across program components to identify those elements that need to be addressed through planning or further development. In addition to providing an analysis of general program status, the Profile can serve as a guide to the development of in-depth probes in specific program areas. For example, the analysis may indicate that the staff development component is weak, motivating school district staff to undertake a more detailed examination of objectives, activities and resources employed in that component.

Technology Applications Program Assessment Profile

District Information:

Name: _____

Central Office Address: _____

_____

Superintendent: _____

Telephone: _____

Number of Schools: High School _____ Middle/Junior High _____ Elementary _____

Number of Students: High School _____ Middle/Junior High _____ Elementary _____

Contact Persons: **Name** **Location**

_____

_____

_____

_____

_____

_____

Assessment Team _____

Members: _____

_____

_____

_____

_____

_____

Directions

Completing the Profile

For each component (e.g., Curriculum, Staff Development, etc.), several statements about the technology program are listed. For each statement indicate first the percentage of implementation accomplished to date. Next, indicate your judgment of the quality of the implementation of that indicator. Finally, indicate in the third column the data source(s) that support your judgment. Use the space provided at the end of each section to record your comments.

Analyzing and Reporting the Data

In analyzing the responses to the instrument, the two scales — degree of implementation and quality — should be treated separately. Both scales should be adjusted according to the weights assigned to each indicator [see number in ( ) at right of each item]. A mean score should be computed for each component on both scales. Transforming these mean scores for each scale to bar graphs will facilitate a comparison of the relative progress in developing the technology program. Bar graphs can also be developed for each indicator, showing the relative development of each element within that component.

Although computing a mean across both scales will not yield useful information, examining discrepancies may indicate where improvement efforts should be directed. For example, where the degree of implementation is considerable or complete and the quality rating is inadequate or poor, priority might be given to improving that indicator. Where implementation is little or moderate and the quality is good or excellent, priority might be given to expanding implementation of that program indicator.

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through		
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION
A. CURRICULUM													
1. There is a written curriculum in use by all staff teaching computer competencies.	0	1	2	3	4	0	1	2	3	4	—	—	—
													(3)
2. The elements of the computer curriculum are defined:													
_____ scope and sequence of competencies	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ instructional materials and equipment	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ instructional strategies	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ assessment measures and procedures	0	1	2	3	4	0	1	2	3	4	—	—	—
													(2)
3. The following computer literacy competencies are taught to all students at some point in the K-12 sequence (check those **not** taught to all students):													
_____ keyboarding knowledge	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ operation of computer	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ running preprogrammed software	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ introduction to programming	0	1	2	3	4	0	1	2	3	4	—	—	—
													(3)
introduction to computer tool applications:													
_____ word processing	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ spreadsheets	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ database managers	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ graphics	0	1	2	3	4	0	1	2	3	4	—	—	—
_____ telecommunications	0	1	2	3	4	0	1	2	3	4	—	—	—
													(3)

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
A. CURRICULUM (continued)	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
4. The district's definition of computer literacy is disseminated and understood by the staff.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
5. There is a balance between the emphasis given to tool and programming applications (i.e., not an inordinate emphasis on programming).	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
6. The curriculum focuses on preparing students to use the computer for becoming more productive learners.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
7. The teaching of computer competencies is integrated with the total school curriculum. (Check those in which computer is used):														
____ language arts	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ social studies	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ math	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ arts	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ science	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ languages	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ vocational programs	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
8. The K-12 computer curriculum serves as a guide for the development of instructional units and lessons.	0	1	2	3	4	0	1	2	3	4	—	—	—	(1)

COMMENTS/OTHER INFORMATION:

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
B. STAFF DEVELOPMENT														
1. There is an orientation (pre-training) program in place which introduces the staff to the capabilities and potential of computers and related technologies in teaching and learning.	0	1	2	3	4	0	1	2	3	4	—	—	—	(1)
2. There is a current inventory of staff computer competencies, updated at least yearly.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
3. There is a staff development program based on projected training needs and activities.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
4. Training is closely linked to the computer program.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
5. Computer training supports the system-wide goals for revitalizing the curriculum.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
6. Computer training is addressed to priority curriculum needs.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
B. STAFF DEVELOPMENT (continued)	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
7. Training is provided for all staff implementing the computer curriculum.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
8. The computer staff development program provides an ongoing system of education and support to faculty through the use of seminars, readings, self-instructional modules, and technical assistance.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
9. The training program is evaluated to assure that skills are acquired and used appropriately.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)

COMMENTS/OTHER INFORMATION:

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
C. HARDWARE/SOFTWARE AND RELATED INSTRUCTIONAL MATERIALS														
1. There is a hardware and software selection and acquisition process in place which employs specific criteria (e.g., technical assistance, match w/curriculum requirements, cost-effectiveness).	0	1	2	3	4	0	1	2	3	4	—	—	—	(1)
2. The computer hardware and peripherals are matched to the curriculum applications that need to be addressed.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
3. Hardware is used a substantial part of the school day (i.e., minimal unscheduled use).	0	1	2	3	4	0	1	2	3	4	—	—	—	(1)
4. There is an up-to-date inventory of hardware and software.	0	1	2	3	4	0	1	2	3	4	—	—	—	(1)
5. There is a software distribution system that is consistent with, and supports, curriculum priorities.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
C. HARDWARE/SOFTWARE AND RELATED INSTRUCTIONAL MATERIALS (continued)														
6. There is a district-wide policy on software piracy, consistent with commercial publishers' protection of royalties.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
7. Appropriate support materials (e.g., workbooks and documentation) are provided for teachers and students.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
8. Equipment procurement and utilization is appropriate and cost-effective.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
9. A system exists for flexibly allocating equipment throughout the district/school, according to needs and curriculum priorities.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
10. Provisions are made for (check those not provided for):														
____ security	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ insurance	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ maintenance and repair	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ software backup	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
C. HARDWARE/SOFTWARE AND RELATED INSTRUCTIONAL MATERIALS (continued)	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
11. There is sufficient hardware to meet current and near-term future needs.	0	1	2	3	4	0	1	2	3	4	—	—	—	(1)
12. There is sufficient software to meet current and near-term future needs.	0	1	2	3	4	0	1	2	3	4	—	—	—	(1)
13. An ongoing evaluation of software in use is conducted.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)

COMMENTS/OTHER INFORMATION:

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
D. STAFFING AND ORGANIZATION														
1. Computer program staff are qualified and appropriately assigned.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
2. The computer program is coordinated at the district and building levels (i.e., appropriately trained staff have designated responsibilities for managing the implementation of the program).	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
3. Teachers, students, parents, and the community are appropriately informed of the computer program (e.g., through the use of meetings and newsletters).	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
4. Computer facilities and equipment are used efficiently.														
____ facilities (e.g., classrooms, laboratories, work stations)	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ resources (e.g., computers, peripherals)	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATIO	
D. STAFFING AND ORGANIZATION (continued)														
5. Computer resources are employed so as to provide equal opportunities for all students to develop appropriate computer competencies.														
____ regular classroom	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ Chapter I	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ special education	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
6. Scheduling allows for every student to have access to computer instruction appropriate to his/her needs.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
7. Roles and responsibilities of staff are defined.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
8. The quantity of staff is sufficient to implement the computer program.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)

COMMENTS/OTHER INFORMATION:

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
E. IMPLEMENTATION														
1. Meetings of computer program teachers are held regularly to discuss implementation problems (i.e., to determine that the curriculum is being taught as planned).	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
2. A monitoring system is used to assess the computer program implementation.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
3. A formal program evaluation is used to assess the effectiveness of the program against established objectives (i.e., student outcomes).	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
4. Teachers understand the roles/behaviors they are expected to perform with respect to integration of computer skills throughout the curriculum.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
5. The implementation of the computer program is being accomplished in **stages** based on available resources.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)

COMMENTS/OTHER INFORMATION:

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
F. PLANNING AND BUDGETING														
1. Planning is conducted in the use of new and future technologies in the computer curriculum.	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
2. A district/school-wide committee conducts program planning for the computer program.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)
3. The computer program plan is reviewed and updated at regular intervals (e.g., every six months).	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
4. The program plan addresses the following elements: (Check those **not** addressed)														
____ philosophy and mission	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ policies	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ program goals	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ student competencies	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ overview of program initiatives for three-to-five year period	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ description of present status	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ resource requirements	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ implementation schedule	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)

Program Component and Indicators	Degree of Implementation					Quality					Information Obtained Through			
F. PLANNING AND BUDGETING (continued)	NONE	LITTLE	MODERATE	CONSIDERABLE	COMPLETE	INADEQUATE	POOR	ADEQUATE	GOOD	EXCELLENT	INTERVIEW	OBSERVATION	DOCUMENTATION	
5. The budget addresses the following elements: (Check those **not** addressed)														
____ staff	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ staff development and training	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ hardware	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ software	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ materials	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ support services (insurance, security, maintenance and repair)	0	1	2	3	4	0	1	2	3	4	—	—	—	
____ facilities	0	1	2	3	4	0	1	2	3	4	—	—	—	(2)
6. The budget is consistent with the requirements of the implement action plan.	0	1	2	3	4	0	1	2	3	4	—	—	—	(3)

COMMENTS/OTHER INFORMATION:

NOTES

MEC is an intermediate service unit in Massachusetts and a charter member of AASA's regional service division.

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